

ABSTRACT OF THE INVENTION

An automatic circuit generation system for generating an object circuit by the use of a cell library including logic cells is described. The system comprising a node state analyzing unit which is configured to obtain combinations of input signals to exchangeable input pins of a logic cell of the cell library included in the object circuit and the probabilities of the respective combinations of the input signals; a leakage current estimating unit which is configured to determine a combination of the input signals, with which the leakage current passing through the logic cell of the cell library included in the object circuit is minimized, with reference to information about leakage currents passing through the exchangeable input pins of the logic cell of the cell library included in the object circuit; and an output unit which is configured to output circuit information in accordance with the combination of the input signals as obtained by the leakage current estimating unit.